# Food Waste Composting Montgomery County

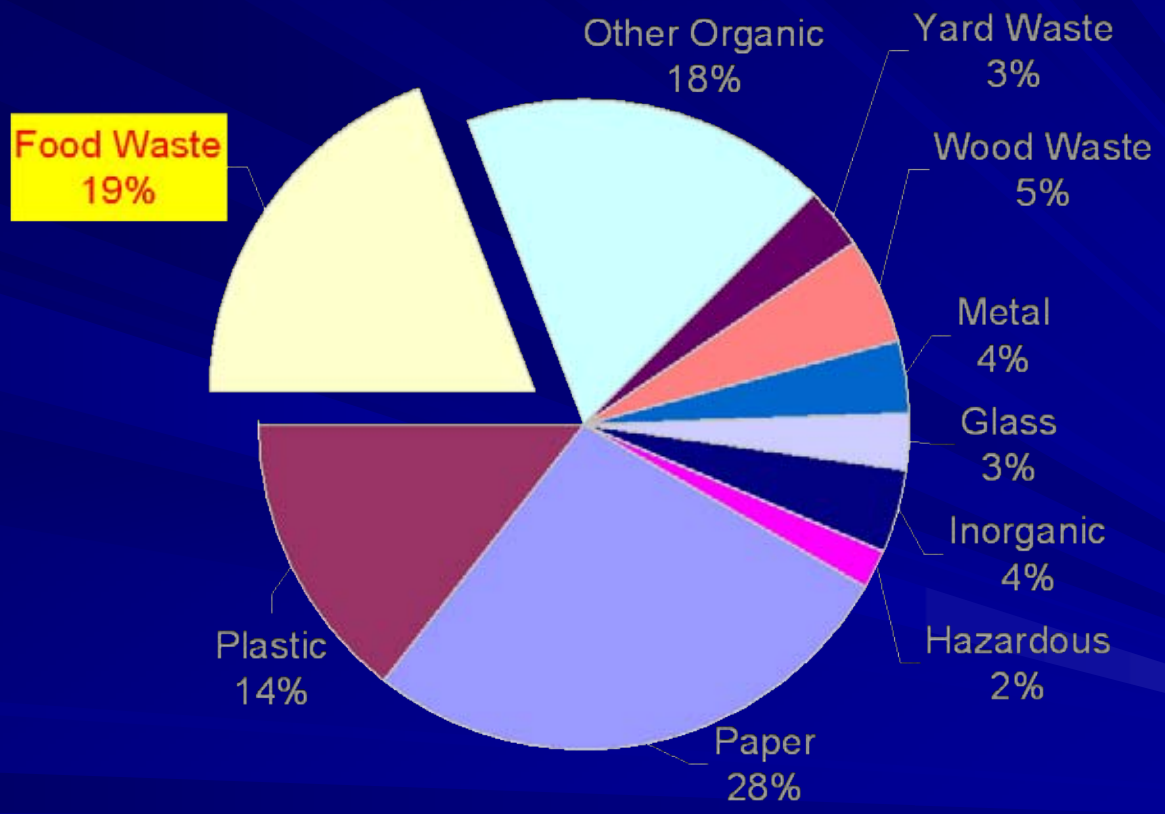
Opportunities and Obstacles

April, 2011

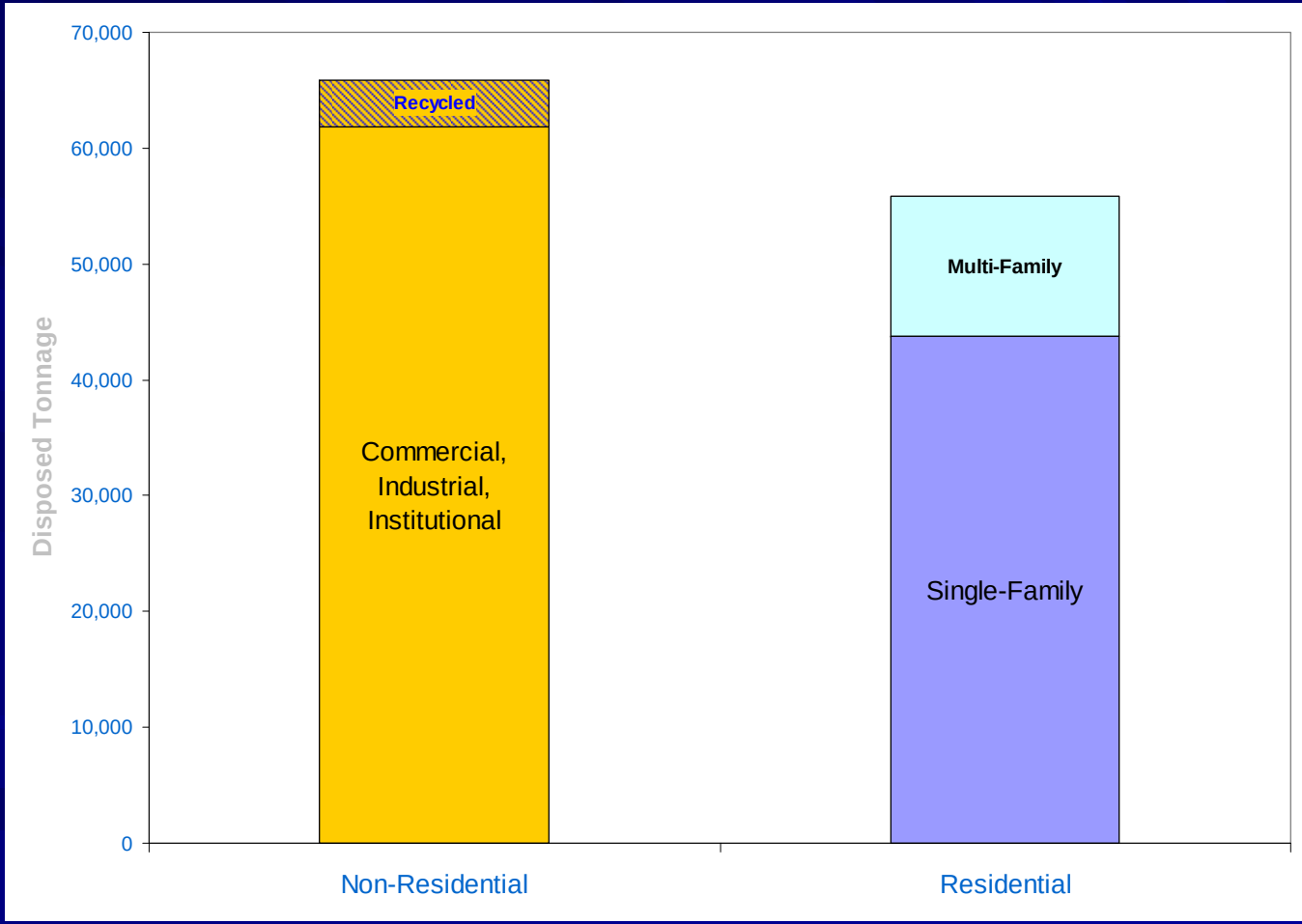
# Agenda

- How much food waste?
- Food waste composting perspectives:
  - Generators
  - Processors
  - Collector
- MoCo food waste pilot project

# How much food waste?



# Food Waste Tonnage



# Target Generators

- Percent of food waste in solid waste stream:

  Restaurants (80%), supermarkets (73%), Education (60%)

- Estimated tonnages generated by non-residential sector:

  - Restaurants: 28,769 tons
  - Supermarkets: 14,014 tons
  - MCPS Schools: 5,301 tons

# Food Waste Composting Perspectives

- ✓ Generators
- ❑ Processors: Receiving facilities
- ❑ Collectors: Hauling companies

# Lessons Learned
## Generators Perspective

- “Champions” strong commitment to the environment and readiness to explore food waste composting. Economics need to be favorable
- Some view source separating their food waste as burden
- Area limitations for new containers

# Food Waste Composting Perspectives

- ❑ Generators
- ✓ Processors: Receiving facilities
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# Lessons Learned
## Processors **Perspective**


Z-Best. Gilroy CA


Cedar Grove. Everett, WA

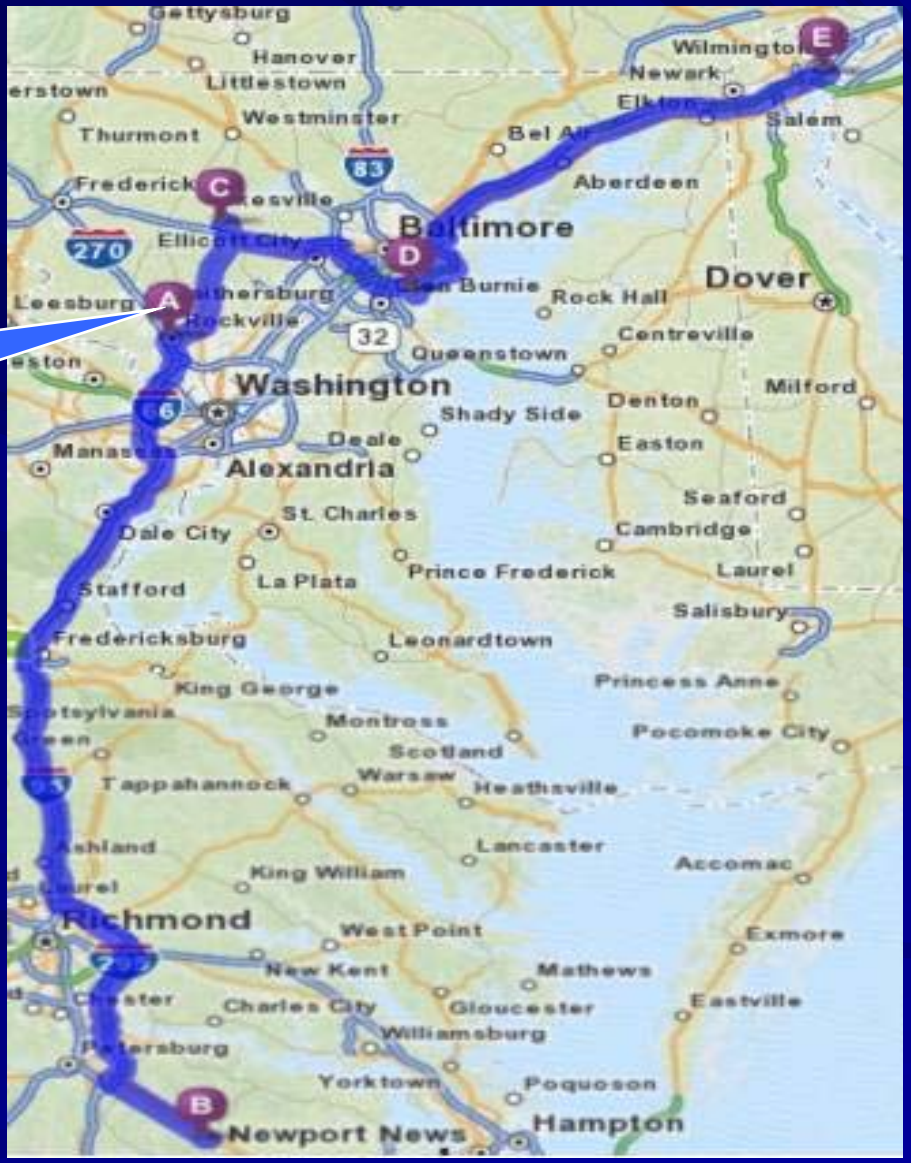

Mariposa County Solid Waste, Mariposa, CA
MSW Composting

# Lessons Learned
## Processors **Perspective**

- Advantages:
  - More process control (temperature)
  - Less odor, leachate, vermin
  - Easier regulatory compliance
  - Short composting time
  - Better product quality
  - Fewer operational staff
  - Small footprint
- Disadvantages:
  - Higher Capital Costs (preliminary info)
- Private sector is participating actively

# Regional and Local Food Waste Composters

Transfer Station



# McGill Sussex Facility, Waverly, VA

- Enclosed System
- Area: 20 Acres
- Throughput: 130,000 t/y
- Current: 180 t/d
- Fee: $10 - $20 (food waste)
- Open: 2005
- Open 6 days/week
- 300,000 cy soil builder
- Investment: $20 M + land
- Pre and post consumer food
- Looking for a location in DC area

# Peninsula Organics Wilmington, Delaware



- Area: 27 Acres
- Capacity 250 t/d
- Current: 180 t/d
- Investment: $20 M
- Distance from MC: 113 miles
- Fee: $32 - $45 (food waste)
- Open: Dec, 2009
- Contamination: No mandatory recycling Delaware

# Peninsula Organics Wilmington, Delaware (Cont.)



- Covered Aerated Piles
  - Gore-Tex
- Open 6 days/week
- Compost class A
- Viewed as a business model
- Carbon credits from Chicago Climate Exchange
- Investors are looking for 20 acres in the Baltimore-DC area

# Recycled Green
# Carroll County

- Area: 30 Acres
- Throughput: 150 – 175 t/d
- Fee: $45 - $55 (food waste)
- 3.5 years of operation
- Distance: 25 miles from MC
- Open 6 days/week
- Compost class A
- Bates: main hauler
- Pre and post consumer food
- Plastic contamination
- No odors complaints
- No NOVs

# TopSoil ETC., Inc
# Curtis Bay MD



- Distance from MC: 46 miles
- Area: 14 acres
- Processing: 20 t/d
- Fee: $45 (food waste)
- 1 year of operation
- Main issue: quality of material
- Open 6 days/week
- Capacity 500 t/d (278 t/d)
- Future investment: 3.8 M
- Haulers: WM and Bates

# Will you take food scraps? Do you have the capacity to expand?

We are exploring adding food waste to the composting operation.

- Prince George's County

*"Want to expand one more acre and are interested in accepting food residuals"*

- Arlington County

*The Institute for Local Self-Reliance, phone survey, April, 2010

# Will you take food scraps? Do you have the capacity to expand?

- *"Not interested in this site to take food residuals, but maybe another site" - POGO Organics (MoCo)*
- *"The composting yard is near a sports field so if we can take over one of them…then maybe" - City of Greenbelt (PG)*
- *"No. Can't have the vectors so close to the airport" - Loudoun Composting (Chantilly, VA)*
- *""There's no space available" - City of Falls Church*
- *Already collecting all non-food materials. Could start collecting food but that's not something that could be done now – though there is interest among our residents. We have no room to expand" - City of College Park (PG)*

# Will you take food scraps? Do you have the capacity to expand?

- *There is some existing capacity for grass and leaves, maybe 5-10K more per year" - Prince William County*
- *"Trying to expand but it's a cost issue. Want to collect more yard waste and have put out an RFP' - City of Alexandria*
- *"Can expand by promoting more backyard composting"- City of Manassas*
- *"Considering options so we could expand to year-round yard trim collection"- District of Columbia*

# Lessons Learned
## Processors Perspective

- There is not yet a reliable infrastructure
- Only two facilities relatively near by MC
- Price of waste disposal vs. composting
- Regulations: MDA/MDE
- Chesterfield Farm shut down, NPDES
- Contamination issues
- Strong private sector interest to invest, but need site to develop a large facility

# Food Waste Composting Perspectives

- ❑ Generators
- ❑ Processors: Receiving facilities
- ✓ Collectors: Hauling companies

# Lessons Learned
# Collectors Perspective

- Organic-niche hauling companies
- “Fastest growing line of business”
- Hauling Economics
  - Geography proximate to composting facility – 25 mile radius
  - Cost optimization
    - Route density
    - Transfer station (consolidate load for longer haul)
  - Largest economic savings should come from trash services level e.g. size of dumpster, frequency of pulls
  - It is a challenge in MC where different collector services providers for trash/recycling / Source Separated Organics (SSO)
  - Trash collection fees compete with SSO collection and recovery

# Lessons Learned
# Collectors Perspective

Challenges

- Contamination of Source Separate Organics
  - Quality of pre-consumer material is more consistent than post-consumer
- Education of generating site employees
  - High staff turnover rates
- Distance to receiving facilities
- Quick degradation of material
  - Service must be provided  on a more frequent/regular schedule
- Diversity of establishments

# Montgomery County Food Waste Pilot Project

- Purpose
  - To implement successful non-residential sector food waste composting program
  - To set up a model demonstration project that can be emulated by other businesses in the County
  - To lead by example
- Test Aspects
  - Acceptable materials
  - Container options, storage area standards
  - Collection frequency, schedule, location
  - Transportation and equipment
  - Outreach, education and training needs
  - Reporting requirements
  - Permit and licensing requirements